



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/931,581

08/17/2001

Mamoru Takikita

Q65636

7222

7590 05/02/2007  
SUGHRUE, MION, ZINN, MACPEAK & SEAS  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037

EXAMINER

HASHEM, LISA

ART UNIT

PAPER NUMBER

2614

MAIL DATE

DELIVERY MODE

05/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/931,581

**Applicant(s)**

TAKIKITA, MAMORU

**Examiner**

Lisa Hashem

**Art Unit**

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1 and 4-6, in the RCE filed on 2-7-07, have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 112*

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble of claim 1, '...A narrow band communication vehicle-mounted apparatus...', is not represented in the body of claim 1. The claim fails to mention anything about an apparatus mounted on a vehicle. See *MPEP* 2111.02.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,825,299 by Fuentes et al, hereinafter Fuentes, in view of Hassett.

Regarding claim 1, Fuentes discloses a narrow band communication mounted apparatus (Fig. 4, 116; e.g. transponder) comprising (see Abstract; col. 7, lines 31-42; col. 9, lines 17-30): a radio-communication portion (Fig. 4, 126; e.g. responder) for sending and receiving with a device (Fig. 4, 111; e.g. transceiver) via an antenna (Fig. 4, 115) (col. 7, lines 31-46),

Art Unit: 2614

a field intensity measuring portion (Fig. 1, 117; e.g. supply circuit) for detecting a radio field intensity (Fig. 4, 114; e.g. RF interrogation field) (col. 7, lines 42-47),

a control microcomputer (Fig. 4, 119; e.g. variable code generator) for controlling various equipment (Fig. 4: 127-131) and a nonvolatile memory (Fig. 4, 120; e.g. readable memory) (col. 8, lines 11-47),

wherein said control microcomputer stores in said nonvolatile memory randomly generated communication registration identification data (e.g. K2) when communication is opened or when said apparatus starts up (col. 7, line 47 – col. 8, line 10), and

communication is performed using communication registration identification data stored in said nonvolatile memory in a case where said apparatus is in a communication range

when said apparatus starts up (col. 7, line 47 – col. 8, line 10; col. 8, line 59 – col. 9, line 12),

wherein said randomly generated communication registration identification data is generated based on the field intensity measured by the field intensity measuring portion (col. 7, lines 42-67).

Fuentes discloses a narrow band communication mounted apparatus or transponder that can be mounted on a human or animal (Fig. 4, 111) communicating with a transceiver (Fig. 4, 111). Fuentes does not disclose a vehicle-mounted apparatus communicating with an on-road device.

Hassett discloses a narrow band communication vehicle-mounted apparatus or in-vehicle component (IVC) (see Abstract; Fig. 2, 16) inherently comprising (col. 12, lines 34-46):

Art Unit: 2614

a radio-communication portion for sending and receiving with an on-road device (Fig. 2, 18) via an antenna (Fig. 14A, 73),  
a field intensity measuring portion for detecting a radio field intensity (Fig. 14A, 76),  
a control microcomputer for inherently controlling various equipment (Fig. 14A, 70), and  
a nonvolatile memory (Fig. 14A, 88) (col. 8, lines 24-53), wherein said apparatus receives communication registration identification data (new T1 signal) when communication is opened or when said apparatus starts up (when receiving this new T1 signal) (col. 8, lines 35-48; col. 15, lines 7-22), and communication is performed using communication registration identification data received in a case where said radio field intensity is in a communication range when said apparatus starts up (when vehicle decides to exit an upcoming ramp and the apparatus receives a T1 signal data) (col. 14, lines 19-56; col. 14, line 65 - col. 15, line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Fuentes to include vehicle mounted device communicating with an on-road device as taught by Hassett. One of ordinary skill in the art would have been lead to make such a modification to identify a moving object, such as a vehicle, in a competition by mounting the transponder in the vehicle and having the transceiver be mounted on a road to communicate with the vehicle in order to collect data from the vehicle-mounted transponder.

Regarding claim 4, the narrow band communication vehicle-mounted apparatus according to claim 1, wherein Fuentes further discloses said control microcomputer stores in said nonvolatile memory randomly generated communication registration identification data (e.g. K2) only when said apparatus starts up (col. 7, line 47 – col. 8, line 10).

Art Unit: 2614

Regarding claim 5, the narrow band communication vehicle-mounted apparatus according to claim 4, wherein Fuentes further discloses said randomly generated communication registration identification data (e.g. K2) is generated only when the measured field intensity indicates that said apparatus is out of communications range (col. 7, line 62 – col. 8, line 10).

Regarding claim 6, the narrow band communication vehicle-mounted apparatus according to claim 4, wherein Fuentes further discloses said randomly generated communication registration identification data (e.g. K2) is not generated when the measured field intensity indicates that said apparatus is within communications range (col. 9, lines 3-12).

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see PTO-892 form.

6. Any response to this action should be mailed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Or faxed to:**

(571) 273-8300 (for formal communications intended for entry)

**Or call:**

(571) 272-2600 (for customer service assistance)

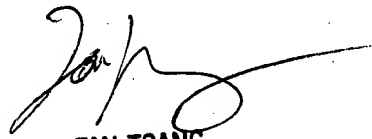
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa Hashem whose telephone number is (571) 272-7542. The examiner can normally be reached on M-F 8:30-5:30.

Art Unit: 2614

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lh  
April 26, 2007

  
FAN TSANG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600